

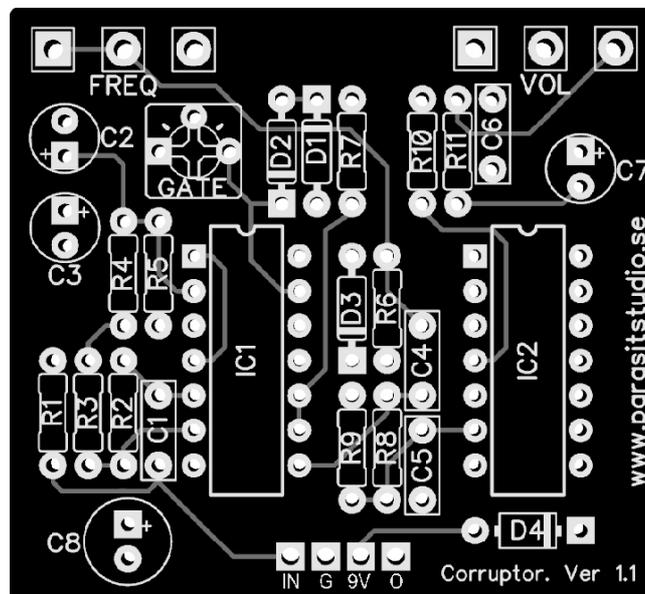
THE CORRUPTOR

Build Document last updated may 2016

for PCB version 1.1

The Corruptor is a very brutal sounding CMOS-based ring modulator. It turns your guitar signal into a squarewave and modulates it against an internal oscillator. The idea behind this circuit comes from the Korg MS20 synth that uses a CD4011 to produce pseudo ringmod effects.

This circuit works best with high output pickups. It is a gated circuit by nature of the CMOS logic. If you are using single coils and need more sustain, try a boost or compressor in front. Happy playing!



General builds tips

- Solder the low profile components first, from short to tall. Recommended order: resistors, diodes, IC socket, film-caps, electrolytics, pots.
- CMOS chips are very sensitive to static charges and can be easily damaged. It's a good idea to wear an anti-static wristband or at least avoid wearing a wool jumper and petting your cat/dog while building...
- Always use sockets for IC chips and transistors to avoid heating them directly. It also makes it much easier to swap them out if needed.
- Pay special attention to the orientation of the diodes and electrolytics.
- This PCB is designed for board mounted angled pots, but if you want to use regular solderlug-pots, the square holes represents pin 1 of the pot.

The Corruptor Bill of Materials (BOM)

Capacitors		Resistors		IC's	
C1	100nF	R1	1M	IC1	CD4069UBE
C2	2.2uF	R2	1M	IC2	CD4070BE
C3	1uF	R3	47K		
C4	47nF	R4	1M		
C5	100nF	R5	100K		
C6	4.7nF	R6	10K		
C7	4.7uF	R7	10K		
C8	100uF	R8	10K		
Diodes		R9	100K	Potentiometers	
D1	1N4148	R10	10K	FREQUENCY	B50K
D2	1N4148	R11	100K	VOLUME	B50K
D3	1N4148	CLR*		Gate (trimmer)	100K
D4	1N4001				
1x LED					

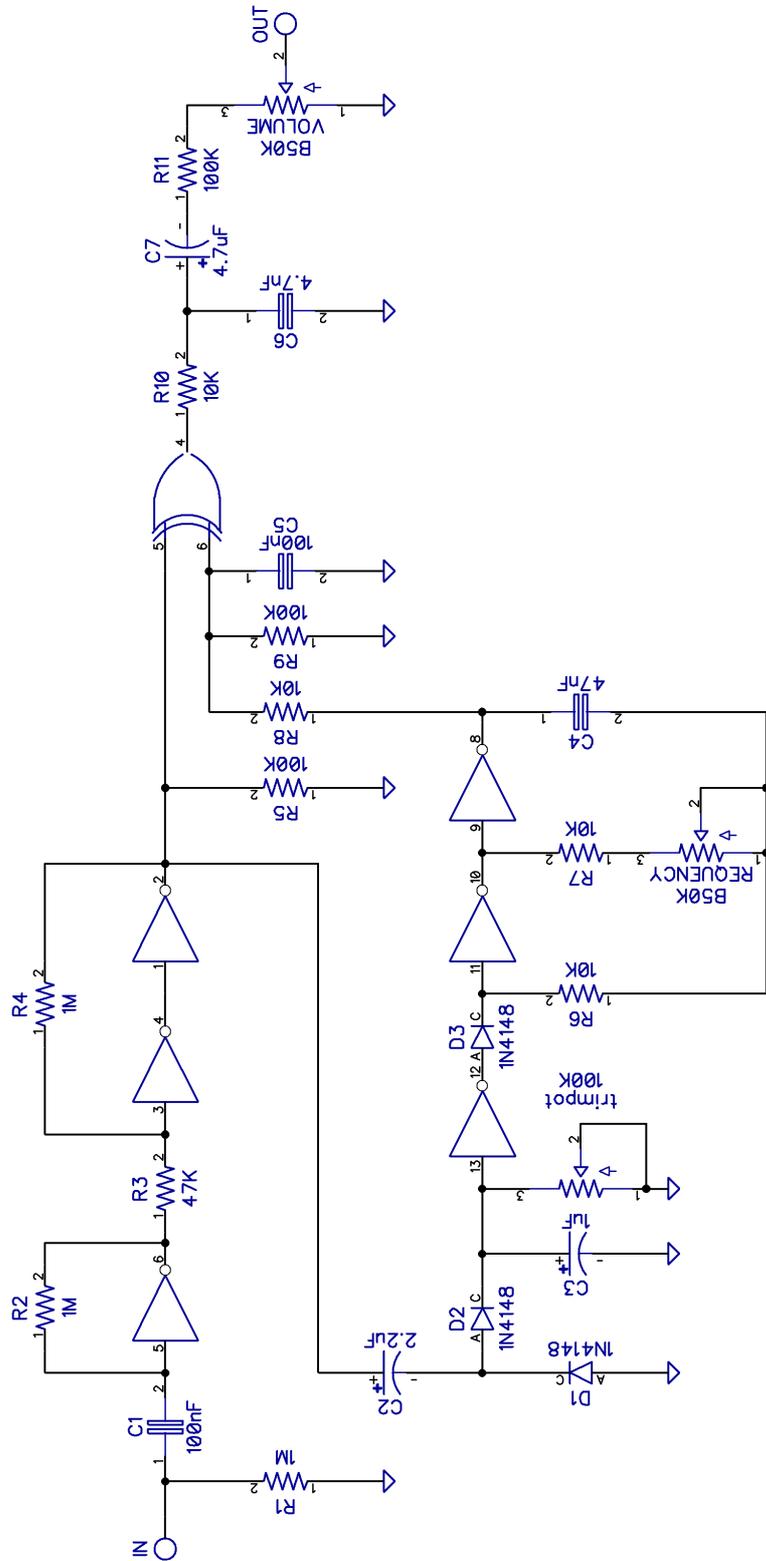
- The trimmer sets the releasetime for the oscillator gate
- * Current Limiting Resistor for the bypass LED. These have to be wired offboard. Use the appropriate value for your LED type. I recommend using a 4.7K resistor for a normal diffused LED or a 15K resistor for a clear superbright LED.
- Possible mod: Increase C6 to decrease treble if you find the pedal too bright. It can sound a bit harsh with the frequency turned all the way up. Try a 10nF to start with.
- Space between pots (measured from the center of each pot): 1.2 inch / 30.5mm. Measure and confirm before drilling.
- **Also not included in the BOM but good to have: enclosure, input and output jacks, DC jack, LED bezel, 3PDT switch, knobs.**

Wiring

For more info on how to wire up the stompswitch, jacks ect, please visit the Parasit Studio website and download the PDF called "offboard wiring". You can find it here:

<http://www.parasitstudio.se/build-docs.html>

Schematic



Note: DC-filtering and polarity protection not shown

Troubleshooting

There's always a chance of running into trouble. To minimize error, follow the BOM and general building tips carefully. Take your time and don't rush. Take a break now and then. Use good solder, and it helps to have a decent soldering station instead of a cheap iron.

If you are still having trouble, please visit the madbean forum Parasit Studio subforum section and ask for help there.

<http://www.madbeanpedals.com/forum/index.php?board=84.0>

If you have bought the Musikding kit and have received a faulty or missing component, please contact musikding directly.

<https://www.musikding.de/kontakt.php?lang=eng>

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